

Modified Grassland Bypass, Drainage & Refuge Photo Tour
11-15-2010



Beginning of the Grasslands Bypass Channel:
Selenium Discharge to a 4- mile earthen ditch next to wetland
areas connecting the drainage area to the San Luis Drain

Slide 1

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**Downstream From Initial GBC Selenium Discharge-
Wildlife Forage in Selenium Tainted Drainage Water**

Slide 2

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**Grasslands Bypass Selenium Drainage Ditch Prior to
Discharge Into the San Luis Drain**

Slide 3

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**Grasslands Selenium Drainage after Reuse Area is
Foraging for Migratory Birds**

Slide 4

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**Grassland Bypass Channel Selenium Drainage Discharge
to the Federal San Luis Drain**

Slide 5

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Migratory Birds Forage, Feed and Travel in Selenium Tainted Discharges in the San Luis Drain for 28 miles next to Wetland Areas and National and State Wildlife Areas

Slide 6

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GBP Selenium Drainage in San Luis Drain Before Discharge to Mud Slough

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**GBP Selenium Discharge to Mud Slough
from San Luis Drain**

Slide 8

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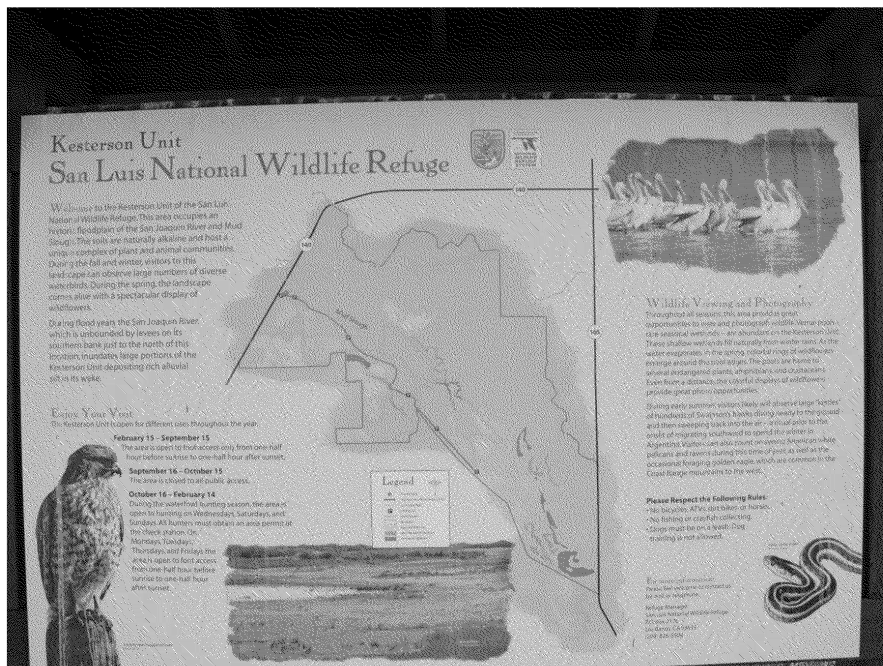
**GBP Selenium Discharge To Mud Slough
Below the San Luis Drain**

Slide9

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**Wetlands Next to Mud Slough Selenium Drainage in the
San Luis National Wildlife Area**



Selenium Agricultural Drainage Travels Through the San Luis National Wildlife Refuge Before Reaching the San Joaquin River .

Slide 10

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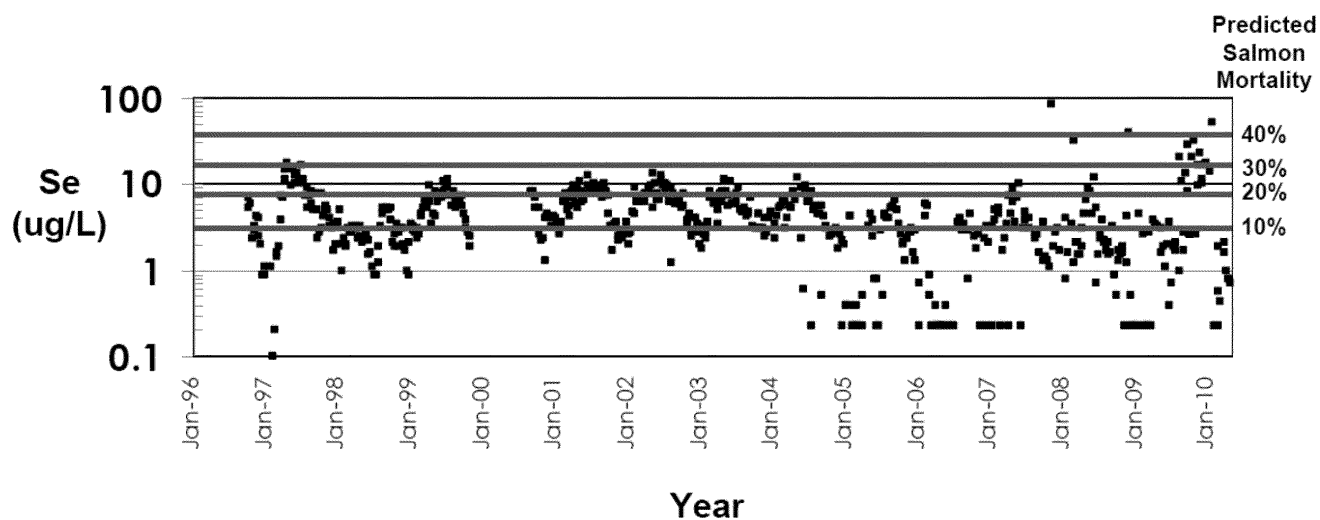


**Irrigation Water “Ponding” in Panoche Drainage District-Taken
5:31 pm from Joe McGahan’s Car Traveling From the levy road
Near the Main Canal & Grassland Bypass Channel Ditch**

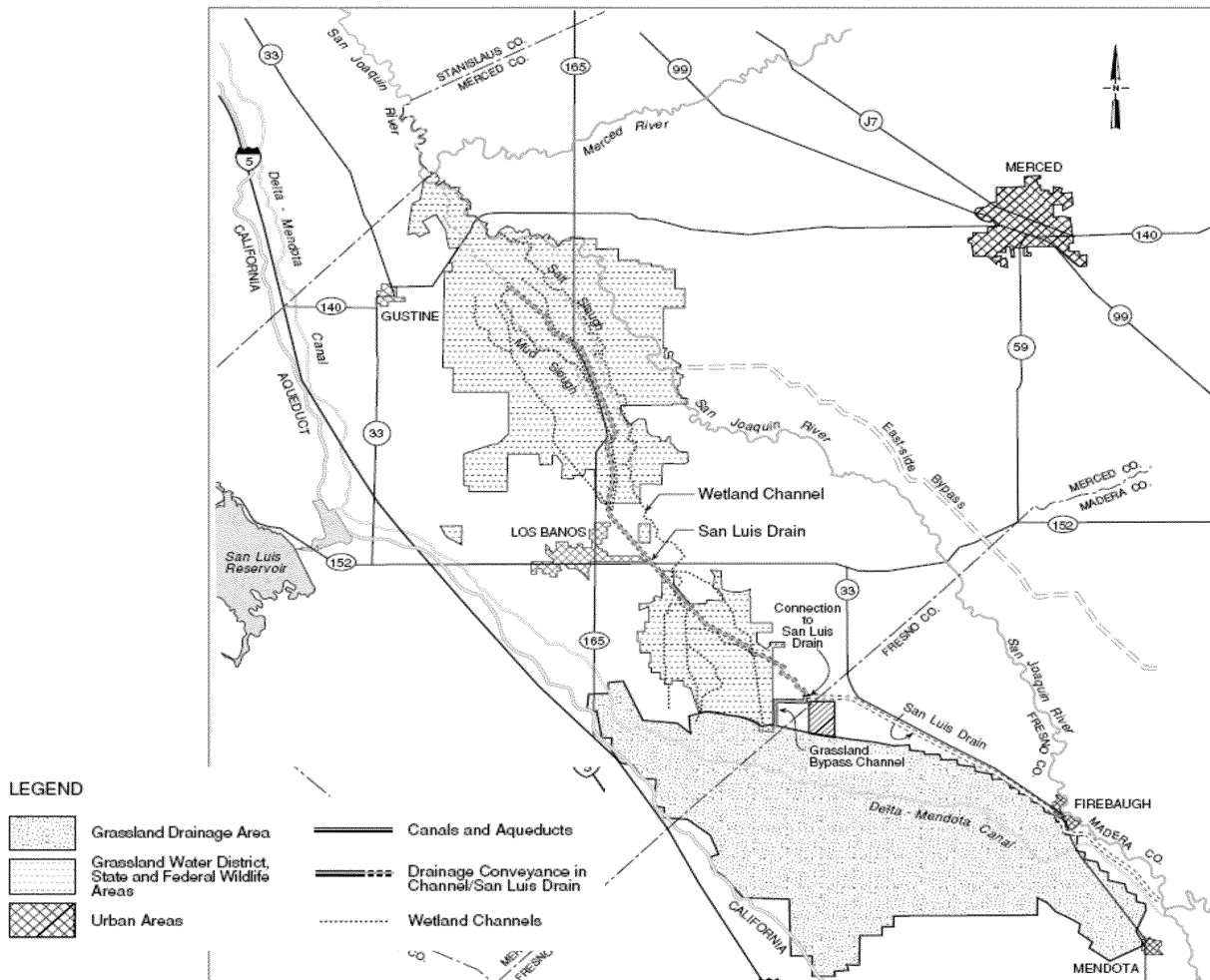
Slide 11

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Selenium Levels and Predicted Salmon Mortality in the San Joaquin River



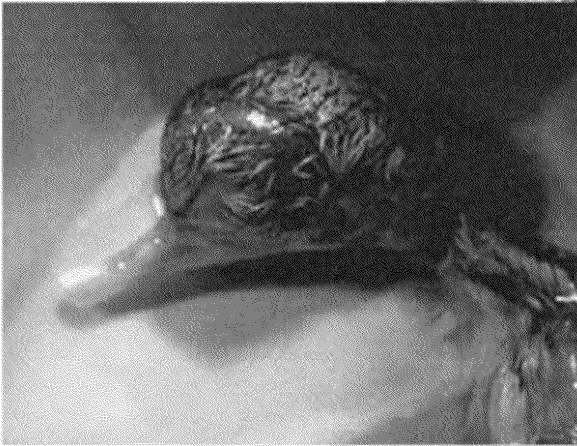
Selenium concentrations measured in the San Joaquin River at Hills Ferry (data from the U.S. Bureau of Reclamation)



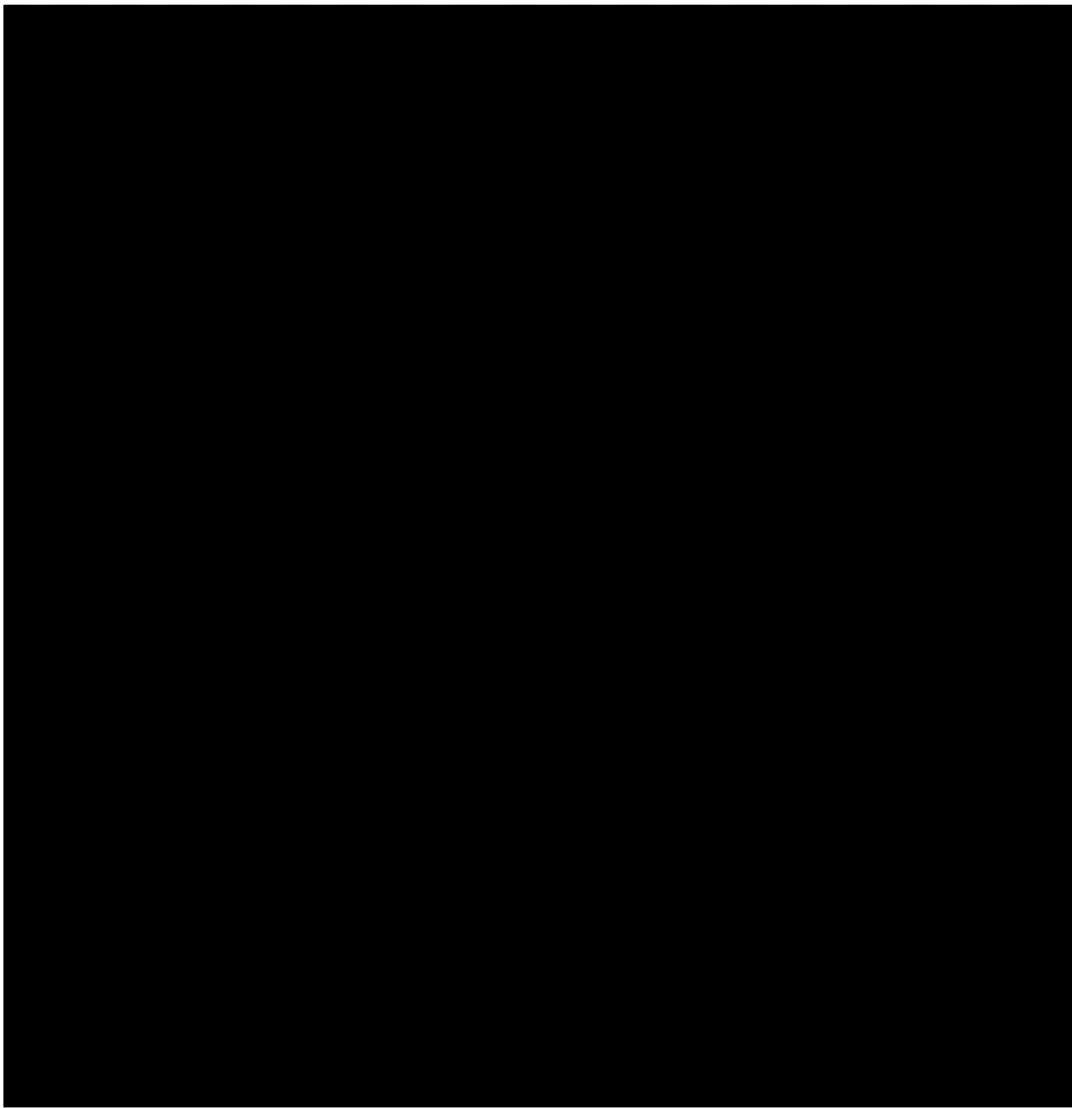
Slide 13

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CVRWQCB Measured 1480 ppb Selenium in 2003 in Ponded Shallow Groundwater



Drainage Solutions: Homage to the Ponds of Folly, Joseph Skorupa, USFWS 2003 UC Drainage Conf. Hazardous Waste levels of Selenium found at Cotton Gin Site near Five Points, California Unregulated Discharges Outside of GBP Area. http://wwwrcamnl.wr.usgs.gov/Selenium/Library_articles/joepond.pdf, Regional Water Board Staff 5-27-10 Testified Areas Upslope Drain Into the Grassland Drainage Area



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